Remarks/Arguments:

This Amendment adds no new claims, and is provided to amend claims 2 and 4. No new matter has been added. Upon entry of this Amendment, claims 2 and 4 will be pending.

In the Office Action, the Examiner noted that no certified copy of the Japanese priority application has been filed and that the abstract of the disclosure exceeds 150 words in length under MPEP § 608.01(b). Claims 1 to 4 are rejected under 35 U.S.C. 103(a).

By this Amendment, claims 1 and 3 have been canceled, and claims 2 and 4 have been amended to include the elements or method steps of canceled claims 1 and 3. Thus, claims 2 and 4 are pending in the application.

The amendments to the abstract are to correct informalities. Applicants respectfully submit that no new matter has been introduced in the subject application. The Examiner's rejections are traversed by the arguments presented below. The amendments reflect matter that is already described in the specification originally filed, including the specification and the drawings. Therefore, the amendments to the claims are within the scope of the specification and drawings originally filed.

I. Objections to Priority

The Examiner stated that the applicants have not filed a certified copy of the P2000-229639 application as required by 35 U.S.C. 119(b). The Applicants believe this is an error in that priority is claimed to Korean Patent Application 2001-29584 as noted in the Declaration and in the official filing receipt. A certified copy of Korean Patent Application 2001-29584 was submitted concurrently with the filing of this application on July 31, 2001.

II. Objections to the Abstract of the Disclosure

The abstract of the disclosure is objected to as being informal, and exceeding 150

words in length. By the Amendment, the abstract has been amended to correct the informality. Applicant respectfully submits the amended abstract.

III. Claims 1 and 3 Rejections - 35 U.S.C. § 103 (a)

Claims 1 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertsch in view of Vander Mey et al. By this Amendment, claims 1 and 3 have been cancelled and the elements or steps of each incorporated into amended claims 2 and 4.

IV. Claims 2 and 4 Rejections - 35 U.S.C. § 103 (a)

Claims 2 and 4 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Bertsch in view of Vander Mey et al and Raphaeli.

The Examiner's attention is respectfully invited to the fact that claim 2 has been amended to include the subject matter of claim 1 with the cancellation of claim 1, and that claim 4 has been amended to include the subject matter of claim 3 with the cancellation of claim 3. That is, claim 2 has been amended by way of defining "the data processing unit" as,

a data shift unit for shifting the serial data received via the power line, thereby outputting the data in parallel;

a comparing unit for comparing the output signal from said data shift unit with the offset value selectively outputted from said reference data selecting unit;

a first compressing unit for compressing an output signal from said comparing unit;

a second compressing unit for re-compressing an output signal from said first compressing unit;

a summing unit for summing output signals from said second compressing unit; **and**

a determining unit for comparing an output signal value from said summing unit with the threshold value selectively outputted from said reference data selecting unit, thereby determining whether or not the output signal value from the summing unit is effective data, and for transmitting the determined value to the MCU.

And claim 4 has been amended by way of defining "said step (b)" as,

the steps of: **(b-1)** converting the serial receiving data into parallel data, and then comparing

the parallel data with said offset value;

(b-2) compressing signals obtained after the comparison at said step (b-1), and summing the compressed signals; and

(b-3) comparing the signal obtained after the summing at said step (b-2) with the threshold value, thereby determining whether or not the serial receiving data is effective data.

By virtue of the amendments made to claims 2 and 4 as set forth above, an apparatus for adaptively detecting received signals for power line communication of the present invention is claimed such that the data processing unit is further comprised of a data shift unit, comparing unit, first compressing unit, second compressing unit, summing unit for summing output signals, and a determining unit.

In the claimed apparatus for adaptively detecting received signals for power line communication of the present invention, the inner modem for adaptive detection is specified and differs from U. S. Patent No. 6,275,922 (Bertsch).

In the claimed apparatus of the present invention, on the main control unit, the external microcomputer does not always have to confirm the situation of the modem generating Event Handler signal, referred to as BE. Although the register unit is comprised to be input with the early value, the register's values which are used in the adaptive operation are changeable according to circumstances, and the reference data selecting unit concurrently stores, selects and uses, both readable and writable data RAM structure and plural reference data, and then can use a variety of chirp signals currently according to communication state. The claimed data processing unit of the present invention is similar only in terms with U. S. Patent No. 6,275,922 (Bertsch), but the structure for processing data differs completely from U. S. Patent No. 6,275,922.

Additionally, there are marked differences between communication data rates and valid pulse width thresholds of U. S. Patent No. 6,275,922 (Bertsch) and U. S. Patent No. 5,574,748 (Vender), and the thresholds for extracting received signals of the present invention. The Bertsch and Vender patents disclose thresholds for valid pulse width. The present invention claims thresholds for comparing with sample data of an A/D signal which is input.

Further, the present invention uses a compressing technique to reduce the complexity of the receive signal extracter by using a correlator, the communication data

rates and valid pulse width thresholds as the Offset and Threshold.

Regarding the interfacing means for offering motion parameters to the digital data signal processing unit, the claimed apparatus of the present invention is able to minutely control important parameters through EXTOFF and EXTTHERE, with consideration for the fact that the character of a power line channel fluctuates with time and place.

Regarding the method of using Offset and Error rate in a power line transmission system, the Bertsch and Vender Patent use a general communication method to be used in a correlator structure which is based on SUM of total sample. The claimed apparatus of the present invention uses Threshold and Offset for comparing with the sample unit, with consideration for providing an efficient embodiment of the correlator structure and variation of a power line channel.

V. Conclusion

In light of the amendments and remarks presented above, it is respectfully submitted that the application is in condition for allowance, and such action is hereby requested.

If any points remain at issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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